

LAKE: CHINA L (VLMP 11)
TOWN: CHINA
COUNTY: KENNEBEC

MIDAS: 5448
TRUE BASIN: 1
SAMPLE STATION: 1

WHOLE LAKE INFORMATION

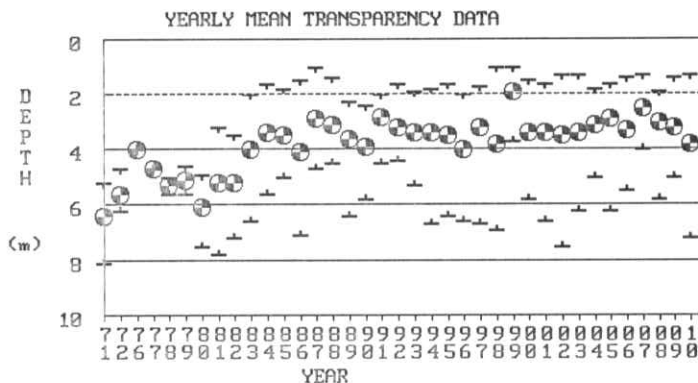
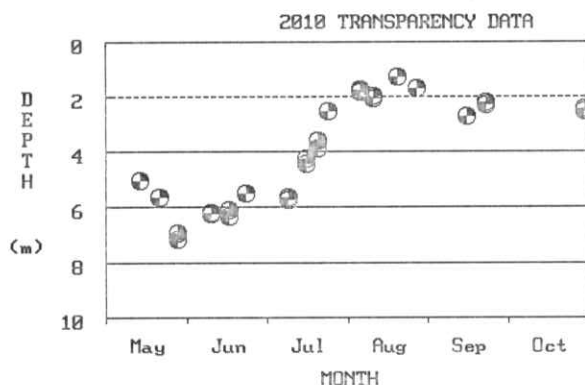
MAX. DEPTH: 26 m. (85 ft.)
MEAN DEPTH: 9 m. (28 ft.)
DELORME ATLAS #: 13
USGS QUAD: CHINA LAKE
IFW REGION B: Belgrade Lakes (Augusta)
IFW FISH. MANAGMENT: Warmwater & Coldwater

TRUE BASIN CHARACTERISTICS

SURFACE AREA: 650.0 ha. (1606.1 a.)
FLUSHING RATE: 0.65 flushes/yr.
VOLUME: 72000000.0 cu. m. (58406 ac.-ft.)
DIRECT DRAINAGE AREA: 17.14 sq. km. (6.62 sq. mi.)

PLEASE NOTE THE FOLLOWING: The SAMPLE STATION # refers to the location sampled. The term TRUE BASIN is used to define areas within a lake that are separated by shallow reefs or shoals and therefore function as separate lakes. There are approximately 50 lakes in the state that have more than 1 True Basin. True Basin Characteristics are now being included in the first section of these reports to enable users of the Phosphorous Loading Methodology to better evaluate the data. If there is no data for a particular True Basin, True Basin Characteristics must be obtained from the DEP. CHINA L has 2 True Basin(s).

SECCHI DISK TRANSPARENCY GRAPHS:



Note: 2010 graphs may indicate multiple readings taken on a given day.

SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

[* indicates that Secchi disk was visible at bottom of lake (or one reading used in calculation was visible)].

YEAR	MEAN	MEAN	MEAN	MEAN	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPHIC STATE INDICES			
	COLOR	pH	ALK	COND.	EPI	SURF	BOT.	PRO.	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	C	G	SEC	CHL
	(SPU)		(mg/l)	(uS /cm)	CORE	GRAB	GRAB	GRAB											
1971	-	-	-	-	-	-	-	-	5.2	6.4	8.1	4	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	4.7	5.6	6.2	5	-	-	-	-	-	-	-
1976	-	-	-	-	15	-	-	-	4.0	4.0	4.0	1	4.1	4.1	4.1	-	-	-	-
1977	-	-	-	-	12	-	-	-	4.7	4.7	4.7	1	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	5.0	5.3	5.6	4	2.9	2.9	2.9	-	-	-	-
1979	-	-	-	-	-	-	43	30	4.6	5.1	5.6	5	-	-	-	-	-	47	-
1980	-	-	-	-	-	-	-	-	4.9	6.1	7.5	6	-	-	-	-	-	38	-
1981	-	-	-	-	-	-	-	-	3.2	5.2	7.8	6	-	-	-	-	-	46	-
1982	20	7.20	19.0	-	12	-	10	-	3.5	5.2	7.2	6	4.2	4.2	4.2	-	-	46	-
1983	-	-	-	-	16	-	25	20	2.0	4.0	6.6	6	10.0	10.0	10.0	-	-	60	-
1984	17	7.26	15.5	63	-	-	21	18	1.6	3.4	5.6	4	5.0	11.5	20.0	-	-	-	-
1985	-	-	-	-	-	-	22	19	1.8	3.5	5.0	5	4.4	7.8	10.9	-	59	68	65
1986	20	7.50	14.0	-	-	-	22	20	1.5	4.1	7.1	6	2.3	10.5	24.7	-	60	59	73
1987	-	7.40	21.0	67	-	-	-	-	1.0	2.9	4.7	5	3.3	14.6	35.4	-	-	78	83
1988	-	-	-	-	-	-	24	22	1.4	3.1	4.5	6	4.1	14.4	29.3	-	63	75	83

LAKE: CHINA L (VLMP 11)
TOWN: CHINA
COUNTY: KENNEBEC

MIDAS: 5448
*TRUE BASIN: 1
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SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

YEAR	MEAN	MEAN	MEAN	MEAN	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPHIC STATE INDICES			
	COLOR	pH	ALK	COND.															
	(SPU)		(mg/l)	(uS	EPI	SURF	BOT.	PRO.					MIN.	MEAN	MAX.	EPI	PHOS	SEC	CHL
				/cm)	CORE	GRAB	GRAB	GRAB	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	C	G	SEC	CHL
1989	-	-	-	-	17	-	19	19	2.3	3.6	6.4	6	5.4	9.9	19.3	-	58	66	72
1990	20	-	-	-	-	-	23	18	2.4	3.9	5.8	6	1.9	8.8	17.3	-	58	62	68
1991	-	-	-	-	17	-	24	20	2.0	2.8	4.5	4	4.7	14.2	21.9	-	-	-	-
1992	-	-	-	-	15	-	16	15	1.6	3.2	4.4	6	3.2	9.3	18.1	-	-	73	70
1993	-	-	-	-	16	-	18	18	1.9	3.4	5.3	6	3.6	11.8	21.1	-	57	69	77
1994	-	-	-	-	17	-	23	23	1.8	3.4	6.7	5	3.7	13.5	26.6	-	64	69	81
1995	15	-	17.0	-	21	-	24	19	1.6	3.5	6.4	5	-	-	-	62	59	68	-
1996	-	-	-	-	18	-	24	22	2.0	4.0	6.6	6	3.5	10.5	16.7	57	64	60	74
1997	10	-	-	-	18	-	31	26	1.7	3.2	6.7	6	4.8	13.0	26.1	58	68	73	80
1998	31	7.38	18.0	83	15	-	20	19	1.0	3.8	6.9	6	2.6	13.8	38.7	53	59	63	81
1999	58	6.83	15.1	98	26	-	25	23	1.0	1.9	3.7	6	6.3	24.5	44.4	67	64	103	98
2000	34	7.04	16.6	153	18	-	23	21	1.5	3.4	5.8	6	4.1	14.8	29.1	58	-	69	83
2001	30	7.28	15.5	83	15	-	27	24	1.6	3.4	6.6	6	3.5	10.7	18.6	-	-	69	-
2002	35	7.29	17.3	87	17	-	32	29	1.3	3.5	7.5	6	3.0	14.1	31.8	56	71	68	82
2003	40	6.59	12.3	90	18	-	20	19	1.3	3.4	6.2	5	2.9	11.4	26.5	57	59	69	76
2004	30	7.23	19.8	62	20	-	45	37	1.8	3.1	5.0	6	4.0	12.3	17.0	60	78	75	78
2005	35	7.17	19.5	66	19	-	25	22	1.6	2.9	6.2	6	4.2	10.5	15.5	58	63	78	74
2006	28	7.04	18.9	56	18	-	49	39	1.4	3.3	5.5	6	3.2	13.3	36.0	58	79	71	80
2007	34	6.98	-	62	20	-	28	24	1.3	2.5	4.0	7	6.6	16.0	27.0	60	66	87	86
2008	31	7.44	20.2	82	19	-	27	25	1.9	3.0	5.8	7	2.0	15.5	42.0	60	-	76	85
2009	-	7.89	-	81	18	-	24	21	1.4	3.2	5.0	7	4.2	15.2	45.0	57	62	73	84
2010	-	5.84	-	84	17	-	36	34	1.3	3.8	7.2	6	2.9	14.5	48.0	56	76	63	83
SUMMARY:	29	6.81	17.3	81	17	-	26	23	1.0	3.8	8.1	37	1.9	11.9	48.0	59	64	67	79

MIDAS: 5448
*TRUE BASIN: 1
*SAMPLE STATION: 1

[illegible]

WATER QUALITY SUMMARY

China Lake, China

Midas: 5448, Basin: West (Basin 1)

The Maine Department of Environmental Protection (Maine DEP), Kennebec Water District (KWD), China Regional Lakes Alliance (CRLA), and the Volunteer Lake Monitoring Program (VLMP) have collaborated in the collection of lake data to evaluate water quality, track algal blooms, and determine historical water quality trends. This dataset does not include bacteria, mercury, or nutrients other than total phosphorus.

Water quality monitoring datasets for China Lake (western basin) has been collected since 1971. During this period, 13 years of basic chemical information was collected in addition to 32 years of Secchi Disk Transparencies (SDT). In summary, the water quality of China Lake is considered poor based on measures of SDT, total phosphorus (TP), and chlorophyll-a (Chla). The potential for nuisance summertime algal blooms on China Lake is moderate to high.

Water Quality Measures (western basin): China Lake is a lightly-colored lake (average color 28 SPU) with an average SDT of 3.9 meters (12.8 feet). The range of upper water column TP for China Lake is 12 - 26 parts per billion (ppb) with an average of 18 ppb. Chla ranges from 1.9 - 40.4 ppb with an average of 11.0 ppb. Recent dissolved oxygen (DO) profiles show high DO depletion in deep areas of the lake. The potential for phosphorus to leave the bottom sediments and become available to algae in the water column (internal loading) is high. Oxygen levels below 5 parts per million stress certain coldwater fish and a persistent loss of oxygen may eliminate or reduce habitat for sensitive coldwater species (e.g., lake trout/togue and landlocked Atlantic salmon).

Comments: China Lake is managed and continually monitored directly through the China Regional Lakes Alliance (CRLA) and the Kennebec Water District. China Lake is also on the State listing of lakes non-attaining water quality standards. A volunteer watershed survey was completed in 1989 with the assistance of the Kennebec County Soil and Water Conservation District, and follow-up water-shed BMP implementation work has been completed in subsequent years through CRLA efforts.

Nutrient Management: A China Lake Total Maximum Daily (Annual Phosphorus) Load (TMDL) report was prepared by Maine DEP during 2000-01, with assistance from the Maine Association of Conservation Districts (MACD) project team. Following China Lake stakeholder and public reviews, this document was approved by US-EPA (New England) on November 5, 2001. This final report, with the EPA-New England review summary/approval letter, can be found on the Maine DEP webpage:
<http://www.maine.gov/dep/blwq/docmonitoring/tmdl2.htm>

See ME-DEP Explanation of Lake Water Quality Monitoring Report for measured variable explanations. Additional lake information can be found on the Internet at <http://www.lakesofmaine.org/> and/or <http://www.maine.gov/dep/blwq/lake.htm>, or telephone the ME-DEP at 207-287-3901 or the VLMP at 207-783-7733.

Filename: chl15448, revised: 03/2006, by dbh

LAKE: CHINA L (VLMP 11)
TOWN: CHINA
COUNTY: KENNEBEC

MIDAS: 5448
TRUE BASIN: 2
SAMPLE STATION: 2

WHOLE LAKE INFORMATION

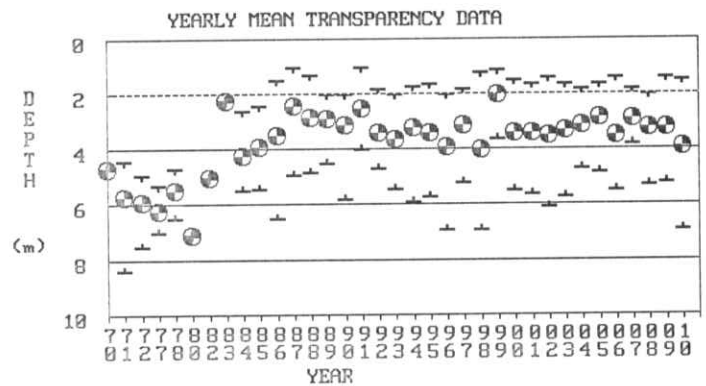
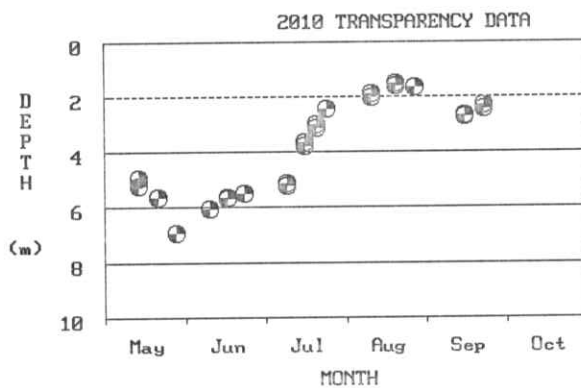
MAX. DEPTH: 26 m. (85 ft.)
MEAN DEPTH: 9 m. (28 ft.)
DELORME ATLAS #: 13
USGS QUAD: CHINA LAKE
IFW REGION B: Belgrade Lakes (Augusta)
IFW FISH. MANAGEMENT: Warmwater & Coldwater

TRUE BASIN CHARACTERISTICS

SURFACE AREA: 908.0 ha. (2243.6 a.)
FLUSHING RATE: 0.72 flushes/yr.
VOLUME: 48000000.0 cu. m. (38937 ac.-ft.)
DIRECT DRAINAGE AREA: 50.46 sq. km. (19.48 sq. mi.)

PLEASE NOTE THE FOLLOWING: The SAMPLE STATION # refers to the location sampled. The term TRUE BASIN is used to define areas within a lake that are separated by shallow reefs or shoals and therefore function as separate lakes. There are approximately 50 lakes in the state that have more than 1 True Basin. True Basin Characteristics are now being included in the first section of these reports to enable users of the Phosphorous Loading Methodology to better evaluate the data. If there is no data for a particular True Basin, True Basin Characteristics must be obtained from the DEP. CHINA L has 2 True Basin(s).

SECCHI DISK TRANSPARENCY GRAPHS:



Note: 2010 graphs may indicate multiple readings taken on a given day.

SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

[* indicates that Secchi disk was visible at bottom of lake (or one reading used in calculation was visible)].

YEAR	MEAN COLOR (SPU)	MEAN pH	MEAN ALK (mg/l)	MEAN COND. (uS/cm)	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPIC STATE INDICES			
					EPI	SURF	BOT.	PRO.	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	EPI	PHOS	SEC	CHI
					CORE	GRAB	GRAB	GRAB								C	G		
1970	-	-	-	-	-	-	-	-	4.7	4.7	4.7	1	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	4.4	5.7	8.4	5	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	4.9	5.9	7.5	5	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	5.3	6.2	7.0	3	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	4.7	5.5	6.5	5	-	-	-	-	-	43	-
1979	-	-	-	-	-	9	-	5	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	15	-	-	-	7.1	7.1	7.1	1	3.1	3.1	3.1	-	-	-	-
1982	20	-	-	-	15	-	14	-	5.0	5.0	5.0	1	3.1	3.1	3.1	-	-	-	-
1983	-	-	-	-	32	-	129	71	2.2	2.2	2.2	1	8.1	8.1	8.1	-	-	-	-
1984	20	6.86	16.0	63	-	-	46	25	2.6	4.2	5.5	3	4.7	7.5	12.7	-	-	-	-
1985	-	-	-	-	-	-	26	19	2.4	3.9	5.4	5	4.6	7.6	12.3	-	59	62	64
1986	30	7.40	14.0	-	-	-	35	25	1.5	3.5	6.5	5	2.3	11.6	32.3	-	67	68	76
1987	-	-	20.0	69	-	-	-	-	1.0	2.4	4.9	6	3.2	12.5	29.4	-	-	89	79
1988	-	6.60	26.0	-	-	-	48	32	1.3	2.8	4.8	6	3.6	13.4	24.2	-	73	80	81
1989	-	-	-	69	18	-	30	24	2.0	2.9	4.5	6	6.1	9.6	17.7	-	66	78	71

MIDAS: 5448
*TRUE BASIN: 2
*SAMPLE STATION: 2

YEAR	MEAN	MEAN	MEAN	MEAN	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPIC STATE INDICES			
	COLOR	pH	ALK	COND.	EPI	SURF	BOT.	PRO.	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	EPI PHOS			
	(SPU)		(mg/l)	(uS /cm)	CORE	GRAB	GRAB	GRAB								C	G	SEC	CHL
1990	20	-	-	-	-	-	33	21	2.0	3.1	5.8	6	2.1	8.8	20.6	-	62	75	69
1991	-	-	-	-	25	-	33	23	1.0	2.5	4.0	5	6.3	11.7	17.0	-	-	87	-
1992	-	-	18.0	-	17	-	50	28	1.8	3.4	4.7	6	3.2	8.0	11.3	-	-	69	66
1993	-	-	-	-	15	-	39	27	2.0	3.6	5.4	6	3.8	9.3	18.5	52	69	66	70
1994	15	-	19.0	-	19	-	30	24	1.7	3.2	5.9	5	3.5	15.2	32.5	-	-	73	-
1995	15	-	17.0	-	21	-	24	-	1.6	3.4	5.7	5	-	-	-	61	-	69	-
1996	-	-	-	-	19	-	30	-	2.0	3.9	6.9	6	3.5	11.5	16.7	59	-	62	76
1997	10	-	-	-	18	21	33	-	1.8	3.1	5.2	6	6.9	13.5	29.4	58	-	75	81
1998	38	7.39	14.0	85	16	-	31	-	1.2	4.0	6.9	5	3.0	13.4	40.2	54	-	60	80
1999	46	7.02	-	86	23	-	47	42	1.1	2.0	3.6	6	5.2	35.5	89.8	64	-	100	109
2000	29	7.12	17.1	80	18	-	46	-	1.5	3.4	5.5	6	3.6	13.6	31.4	58	-	69	81
2001	26	7.60	18.4	83	35	-	48	-	1.6	3.4	5.6	5	2.0	8.6	16.2	76	-	69	68
2002	37	7.58	15.5	87	19	-	26	-	1.4	3.5	6.1	6	3.1	12.5	29.6	59	-	68	78
2003	32	7.32	19.0	89	18	-	28	-	1.6	3.3	5.7	6	3.5	11.0	28.2	58	-	71	75
2004	30	7.36	19.8	68	20	-	42	-	1.8	3.1	4.7	6	5.0	11.3	19.0	60	-	75	75
2005	38	7.29	19.3	72	17	-	25	-	1.6	2.8	4.8	5	3.6	10.4	16.8	56	-	80	73
2006	29	7.07	19.0	63	18	-	33	-	1.4	3.5	5.5	5	6.0	14.4	28.0	-	-	68	-
2007	26	7.07	-	63	24	-	62	-	1.8	2.9	3.8	5	5.8	12.0	19.0	-	-	78	77
2008	35	7.51	20.1	82	18	-	75	-	2.0	3.2	5.3	4	11.0	13.9	19.0	-	-	-	-
2009	-	7.76	-	82	16	-	24	-	1.4	3.2	5.2	6	4.2	13.2	52.0	55	-	73	80
2010	-	8.02	-	83	19	-	46	-	1.5	3.9	6.9	5	3.7	13.1	46.0	59	-	62	80
MARY:	27	7.18	18.3	77	20	15	40	28	1.0	3.7	8.4	35	2.0	11.6	89.8	59	66	72	77

[illegible]

WATER QUALITY SUMMARY

China Lake, China

Midas: 5448, Basin: Southeast (Basin 2)

The Maine Department of Environmental Protection (Maine DEP), Kennebec Water District (KWD), China Regional Lakes Alliance (CRLA), and the Volunteer Lake Monitoring Program (VLMP) have collaborated in the collection of lake data to evaluate water quality, track algal blooms, and determine historical water quality trends. This dataset does not include bacteria, mercury, or nutrients other than total phosphorus.

Water quality monitoring data for China Lake (southeastern basin) have been collected since 1970. During this period, 18 years of basic chemical information was collected in addition to 29 years of Secchi Disk Transparencies (SDT). In summary, the water quality of China Lake is considered poor based on measures of SDT, total phosphorus (TP), and chlorophyll-a (Chla). The potential for nuisance summertime algal blooms on the southeastern basin of China Lake is high.

Water Quality Measures (southeastern basin): China Lake is a lightly-colored lake (average color 26 SPU) with an average SDT of 3.8 meters (12.5 feet). The range of upper water column TP for China Lake is 15 - 35 parts per billion (ppb) with an average of 20 ppb. Chla ranges from 2.0 - 46.9 ppb with an average of 10.8 ppb. Recent dissolved oxygen (DO) profiles show high DO depletion in deep areas of the lake. The potential for phosphorus to leave the bottom sediments and become available to algae in the water column (internal loading) is high. Oxygen levels below 5 ppm stresses certain coldwater fish and a persistent loss of oxygen may eliminate or reduce habitat for sensitive coldwater species (e.g., lake trout/togue and landlocked Atlantic salmon).

Comments: China Lake is managed and continually monitored directly through the China Regional Lakes Alliance and the Kennebec Water District. China Lake is also on the state listing of lakes non-attaining water quality standards. A volunteer watershed survey was completed in 1989 with the assistance of the Kennebec County Soil and Water Conservation District, and follow-up watershed BMP implementation work done in subsequent years through CRLA efforts.

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Filename: chi25448, revised: 03/2005, by dbh

LAKE: CHINA L (VLMP 11)
TOWN: CHINA
COUNTY: KENNEBEC

MIDAS: 5448
TRUE BASIN: 2
SAMPLE STATION: 3

WHOLE LAKE INFORMATION

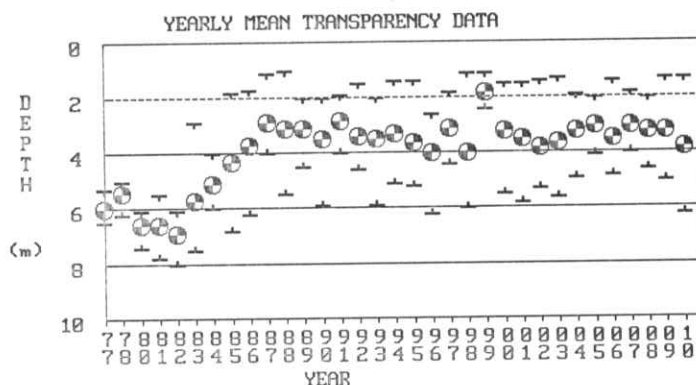
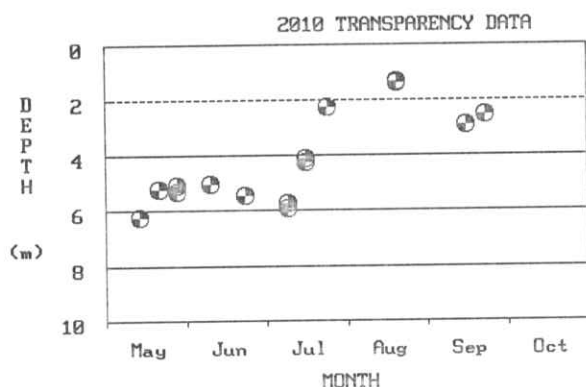
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MEAN DEPTH: 9 m. (28 ft.)
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USGS QUAD: CHINA LAKE
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IFW FISH. MANAGMENT: Warmwater & Coldwater

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VOLUME: 48000000.0 cu. m. (38937 ac.-ft.)
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[* indicates that Secchi disk was visible at bottom of lake (or one reading used in calculation was visible)].

YEAR	MEAN COLOR (SPU)	MEAN pH	MEAN ALK (mg/l)	MEAN COND. (uS/cm)	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A (ppb)			TROPHIC STATE INDICES			
					EPI	SURF	BOT.	PRO.	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	EPI	PHOS	SEC	CHL
					CORE	GRAB	GRAB	GRAB								C	G		
1977	-	-	-	-	-	-	-	-	5.3	6.0	6.5	3	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	5.0	5.4	6.2	5	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	18	-	-	-	6.1	6.6	7.4	3	2.4	2.8	3.0	-	-	-	-
1981	-	-	-	-	-	-	-	-	5.5	6.6	7.8	3	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-	6.1	6.9	8.0	4	-	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	2.9	5.7	7.5	4	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	4.0	5.1	6.0	4	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	1.8	4.3	6.8	4	-	-	-	-	-	-	-
1986	35	7.40	14.0	-	-	-	53	32	1.7	3.7	6.2	6	2.1	10.6	30.0	-	-	-	74
1987	-	-	-	-	-	-	-	-	1.1	2.9	4.0	3	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	79	41	1.0	3.1	5.5	6	3.1	11.5	26.7	-	-	-	76
1989	-	-	-	68	25	-	49	32	2.0	3.1	4.5	6	3.3	10.5	17.0	-	-	-	73
1990	20	-	-	-	-	-	127	63	2.0	3.5	5.9	6	1.8	9.9	32.7	-	-	-	72
1991	-	-	-	-	17	-	118	52	1.9	2.8	4.0	5	5.6	10.1	15.1	-	-	-	-

MIDAS: 5448
*TRUE BASIN: 2
*SAMPLE STATION: 3

YEAR	MEAN	MEAN	MEAN	MEAN	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPIC STATE INDICES			
	COLOR	pH	ALK	COND.	EPI	SURF	BOT.	PRO.								EPI PHOS			
	(SPU)		(mg/l)	(uS					MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	C	G	SEC	CHL
				/cm)	CORE	GRAB	GRAB	GRAB											
1992	-	-	18.0	-	18	-	48	26	1.5	3.4	4.6	6	0.7	7.3	13.1	-	-	-	63
1993	-	-	-	-	16	22	82	46	2.0	3.5	5.9	6	3.8	7.9	16.4	-	-	-	65
1994	-	-	-	-	20	-	42	33	1.4	3.3	5.1	5	3.2	14.4	37.0	-	-	-	-
1995	11	-	17.0	-	17	-	57	59	1.4	3.6	5.2	6	-	-	-	-	-	-	-
1996	-	-	-	-	17	-	56	44	2.6	4.0	6.2	6	3.9	8.4	12.8	-	-	-	67
1997	-	-	-	-	18	-	52	40	1.8	3.1	4.4	6	9.1	13.9	21.9	-	-	-	81
1998	31	7.32	14.0	87	15	-	34	23	1.1	4.0	6.0	5	1.4	14.7	64.2	-	-	-	83
1999	49	7.08	-	89	23	-	64	-	1.1	1.8	2.4	6	6.5	31.2	77.1	-	-	-	105
2000	27	7.07	14.7	80	20	-	53	24	1.5	3.2	5.5	6	3.7	17.9	82.0	-	-	-	89
2001	29	7.69	18.4	84	17	-	67	-	1.5	3.5	5.8	5	3.8	9.0	15.5	-	-	-	-
2002	37	7.56	18.0	87	18	-	67	-	1.4	3.8	5.3	6	4.2	13.1	33.7	-	-	-	80
2003	44	7.10	19.0	91	33	-	38	-	1.3	3.6	5.6	6	3.8	10.0	31.7	-	-	-	72
2004	29	7.34	19.7	71	21	-	66	-	1.9	3.2	4.9	6	5.0	10.7	25.0	-	-	-	74
2005	36	7.26	19.4	74	18	-	52	-	2.0	3.0	4.1	5	3.4	11.3	20.9	-	-	-	75
2006	29	7.03	19.0	63	17	-	33	-	1.4	3.5	4.8	4	2.8	4.8	7.5	-	-	-	-
2007	29	6.96	-	64	21	-	36	-	1.8	3.0	4.0	5	6.0	9.8	15.0	-	-	-	72
2008	-	-	-	-	17	-	17	-	2.0	3.2	4.6	4	7.4	11.8	16.0	-	-	-	-
2009	-	7.73	-	82	18	-	53	-	1.3	3.2	5.0	6	3.6	14.5	56.0	-	-	-	83
2010	-	6.62	-	83	18	-	53	25	1.3	3.8	6.2	5	3.6	10.6	39.0	-	-	-	-
SUMMARY:	31	7.14	17.4	79	19	22	58	37	1.0	3.9	8.0	33	0.7	11.5	82.0	-	-	-	77

[illegible]

WATER QUALITY SUMMARY

China Lake, China

Midas: 5448, Basin: Northeast (Basin 3)

The Maine Department of Environmental Protection (Maine DEP), Kennebec Water District (KWD), China Regional Lakes Alliance (CRLA), and the Volunteer Lake Monitoring Program (VLMP) have collaborated in the collection of lake data to evaluate water quality, track algal blooms, and determine historical water quality trends. This dataset does not include bacteria, mercury, or nutrients other than total phosphorus.

Water quality monitoring data for China Lake (northeastern basin) have been collected since 1977. During this period, 16 years of basic chemical information was collected in addition to 27 years of Secchi Disk Transparencies (SDT). In summary, the water quality of China Lake is considered poor based on measures of SDT, total phosphorus (TP), and chlorophyll-a (Chla). The potential for nuisance summertime algal blooms on China Lake is high.

Water Quality Measures (northeastern basin): China Lake is a lightly-colored lake (average color 31 SPU) with an average SDT of 4.1 meters (13.5 feet). The range of upper water column TP for China Lake is 15 - 33 parts per billion (ppb) with an average of 19 ppb. Chla ranges from 0.7- 82.0 ppb with an average of 11.3 ppb. Recent dissolved oxygen (DO) profiles show high DO depletion in deep areas of the lake. The potential for phosphorus to leave the bottom sediments and become available to algae in the water column (internal loading) is high. Oxygen levels below 5 ppm stress certain coldwater fish, and a persistent loss of oxygen may eliminate or reduce habitat for sensitive coldwater species (e.g., lake trout/togue and landlocked Atlantic salmon).

Comments: China Lake is managed and continually monitored directly through the China Regional Lakes Alliance and the Kennebec Water District. It is also on the state listing of lakes non-attaining water quality standards. A volunteer watershed survey was completed in 1989 with the assistance of the Kennebec County Soil and Water Conservation District, and follow-up watershed BMP implementation work has been carried out in subsequent years through CRLA efforts.

Nutrient Management: A China Lake Total Maximum Daily (Annual Phosphorus) Load (TMDL) report was prepared by Maine DEP during 2000-01, with assistance from the Maine Association of Conservation Districts (MACD) project team. Following China Lake stakeholder and public reviews, this document was approved by US-EPA (New England) on November 5, 2001. This final report, with the EPA-New England review summary/approval letter, can be found on the Maine DEP webpage:
<http://www.maine.gov/dep/blwq/docmonitoring/tmdl2.htm>

See ME-DEP Explanation of Lake Water Quality Monitoring Report for measured variable explanations. Additional lake information can be found on the Internet at <http://www.lakesofmaine.org/> and/or <http://www.maine.gov/dep/blwq/lake.htm>, or telephone the ME-DEP at 207-287-3901 or the VLMP at 207-783-7733.

Filename: chi5448_3, revised: 03/2005, by dbh